Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Delete, Delete, Delete	)	GN Docket No. 25-133
	)	

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads ("AAR") respectfully submits these comments in response to the Federal Communications Commission's ("FCC's" or "Commission's") recent Public Notice seeking comment on "deregulatory initiatives that would facilitate and encourage American firms' investment in modernizing their networks, developing infrastructure, and offering innovative and advanced capabilities."[1] AAR applauds the Commission's efforts to alleviate unnecessary regulatory burdens and welcomes the opportunity to participate in this proceeding. AAR suggests the following discrete changes to reduce administrative burdens on both Commission staff and licensees, as well as maximize spectral efficiency and licensing flexibility:

- For Part 80 licensees operating between 219.5-220 MHz, delete the rules requiring the submission of a study demonstrating how the licensee will avoid or remedy interference with TV reception within the Grade B contour of Channel 13 or 10 television stations.
- Increase the 8 watt transmitter power restriction to 30 watts for Part 90 railroad end-of-train ("EOT") telemetry operations using the 452/457.9375 MHz frequency pair.

[1] *Delete, Delete, Delete,* GN Docket No. 25-133, Public Notice, DA 25-219, at 1 (rel. Mar. 12, 2025) ("Public Notice").

- Consolidate the individually-licensed Part 90 railroad coordinator-assigned frequencies using 160 MHz channels into a single nationwide ribbon license.

These proposals align with the Public Notice's goals of eliminating rules that "may stand in the way of deployment, expansion, competition, and technological innovation in communications."[2] Prompt Commission action would serve the public interest by allowing AAR and its members to better secure the nation's railroad network through the deployment of innovative rail safety applications.

I. Background

Founded in 1934, AAR plays a key role in protecting the nation's freight railways through advocacy, policy work, standards setting, and frequency coordination. The list of AAR members, affiliates, and associates is expansive: AAR currently has 18 full members, including all six Class I freight railroads operating in the U.S. and Amtrak, and dozens of other entities (e.g., non-Class I and commuter railroads) have joined AAR as special members, railroad affiliates, or associate organizations.[3]

AAR and its members operate a complex, nationwide rail network that relies on a variety of licensed frequencies in the 160-161 MHz, 219.5-222 MHz, 450 MHz, 900 MHz, and 6 GHz bands. This spectrum is necessary to make legally required rail safety applications more reliable.[4] Moreover, the railroads' safety-related uses of existing spectrum are expanding and will continue to intensify as they incorporate new safety-related applications into their networks.

---

[2] Public Notice at 1-2.

[3] *See AAR Members, Affiliates & Associates*, AAR (Feb. 2025), https://www.aar.org/wp-content/uploads/2025/02/AAR-Members-Affilites-Associates-Fact-Sheet-2025.02.24.pdf.

[4] *See e.g.*, Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, § 104, 122 Stat. 4848, 4856 (2008).

But rail-safety applications do not fit neatly into any current set of FCC service rules. AAR and its members must therefore seek access to spectrum bands that suit the needs of these critical safety applications and then either (a) request for each license a waiver of inapplicable rules that stymie or prevent deployment, requiring the Commission to expend resources to review and approve many individual waivers; or (b) comply with rules that limit flexibility, delay deployments, and increase administrative burdens because they contemplate a service that differs vastly from the railroads' unique operations. The proposals below seek to address these inefficiencies.

II. Eliminating the Recurring Interference Study Requirement will Relieve Administrative Burdens and Enable Rapid Deployment of Rail Safety Applications using 219.5-220 MHz AMTS Spectrum.

The Public Notice seeks comment on "whether experience gained in the implementation of a given rule provides reason to believe that the rule is unnecessary or inappropriate, whether in its current form or otherwise."[5] This is because the Commission has a duty to "evaluate its policies over time to ascertain whether . . . they actually produce the benefits the Commission originally predicted they would."[6] AAR applauds the Commission's forward-thinking approach to ensuring its rules remain effective and beneficial and, accordingly, proposes a targeted modification of two Part 80 rules.

Currently, Automated Maritime Telecommunications System ("AMTS") licensees must submit an interference mitigation plan for any transmitters that will be located within 169 kilometers of a Channel 13 television station or 129 kilometers of a Channel 10 television

[5] Public Notice at 3.

[6] *Id.* (internal citations omitted).

station.[7] The Commission established this requirement to protect TV receivers from maritime communications.[8] However, maritime communications differ significantly from rail safety applications, which are far less likely to cause interference.[9]

The railroads sought access to 219.5-220 MHz AMTS spectrum to augment existing licenses in the adjacent 220-222 MHz band (used primarily for positive train control) and to alleviate increasing congestion on its 220 MHz network. Rail safety deployments using AMTS spectrum require filing for each license area an interference study seeking permanent authority for the thousands of base and wayside stations necessary to monitor track conditions. These studies then require close review by Commission staff, which can take years.[10] To avoid delays, railroad operators often seek special temporary authority ("STA") to conduct rail safety operations on an unprotected, non-interference basis while the Commission reviews the

[7] *See* 47 C.F.R. §§ 80.215(h)(2), 80.475(a)(1).

[8] *See Amendment of Parts 2 and 80 of the Commission's Rules Applicable to Automated Maritime Telecommunications Systems (AMTS)*, 6 FCC Rcd 437 ¶¶ 3-5 (1991); *see also Amendment of the Commission's Rules Concerning Maritime Communications, et al.*, Fifth Report and Order et al., 19 FCC Rcd 9918 ¶ 4 (2002) (describing maritime services).

[9] Over four years of operation, no harmful interference to Channel 13 (or Channel 10) has been reported. The reasons the railroads are less likely to interfere with television stations include: (1) the presence of a 3.5 MHz guard band between railroad operating frequencies (219.5–220 MHz) and Channel 13 (210–216 MHz); (2) the robust forward error correction employed in modern ATSC digital television receivers; (3) the fact that transmitter deployments are primarily located within railroad rights-of-way and generally away from households receiving over-the-air broadcast signals; and (4) the highly conservative and overstated assumptions underlying *TVStudy* modeling.

[10] *See, e.g.*, ULS File Nos. 0010226683 (PTC-220 LLC's license modification application, which included a Channel 13 interference study, was filed on October 3, 2022 and granted on May 22, 2024); 0008962604 (PTC-220's license modification application, which included a Channel 13 interference study, was filed on January 31, 2020 and granted on January 5, 2022); 0006812391 (Amtrak's license modification application, which included a Channel 13 interference study, was filed on May 22, 2015 and granted on June 30, 2016); 0008224153 (Massachusetts Bay Transportation Authority's license modification application, which included a "TV Interference Analysis," was filed on May 25, 2018 and granted on June 12, 2019).

corresponding interference study.[11] Although the STA process allows the railroads to begin operations more quickly, the railroads and Commission staff must bear the burdens of preparing, filing, reviewing, and approving the STA, with the corresponding needed waivers, and then monitoring operations after grant.[12] Taken together, the interference study and STA processes amount to a tremendous administrative burden on both railroad operators and the Commission.

AAR proposes modifying Sections 80.215(h)(2) and 80.475(a)(1) to eliminate the interference study requirement for railroad operators in the 219.5-220 MHz band. The proposal serves the public interest by reducing the administrative burden on the railroads and Commission staff, facilitating the rapid deployment of important and legally-required rail safety applications, and liberating resources for investment in new safety applications to better improve railroad networks.

Eliminating the requirement would not affect the interference environment for Channel 13 and Channel 10 TV stations. There are no known instances of harmful interference from railroad operators despite four years of operation in the band.[13] This result is unsurprising, as the FCC's interference study guidance greatly overestimates the real-world potential for

[11] *See e.g.*, Call Sign WSER805 (granting PTC-220 LLC special temporary authority to operate in AMTS Region 5).

[12] *See id.* (requiring PTC-220 to submit monthly reports on (a) the number of interference reports received; (b) the date and time of reported interference; (c) the affected broadcast station; (d) a description of the base station that caused the interference, including its location, height, and other pertinent characteristics; and (e) the period from receipt of a report to resolution, and the type of resolution.).

[13] *See, e.g.*, Letter from Michele C. Farquhar, Counsel to PTC-220, LLC, to Marlene H. Dortch, FCC, ULS File No. 0011262999 (filed Oct. 28, 2024) (certifying that PTC-220 has received no reports of interference from broadcasters since commencing operations pursuant to an STA in AMTS Region 4). Consistent with FCC rules, the railroads notified all relevant TV stations in the proposed areas of operation. *See* 47 C.F.R. § 80.475(a)(2).

interference.[14] Moreover, the Commission has already approved railroad operations in all relevant AMTS regions, but the railroads must continue to submit further interference studies to deploy additional sites outside the original study's contour. The hours of time and substantial cost to prepare each study deter enhancements to public safety through further deployment of positive train control and other rail safety services.

Due to the immense administrative burden to railroads and the Commission, and because interference to Channel 10 and Channel 13 TV stations is extremely unlikely, the interference study requirement should be eliminated for railroad operators in the 219.5-220 MHz AMTS band. To address any potential concerns about the unlikely event of harmful interference, the Commission could retain a slightly modified version of the broadcaster notification requirement.[15]

[14] The reasons the guidance overestimates the potential for harmful interference include: (a) the fact that the percentage of households that receive over-the-air television is often just a small fraction of the market (typically between 5% and 20%); (b) the interference calculations do not account for clutter; (c) the FCC's *TVStudy* program does not account for the railroad's frequency reuse limits and therefore improperly aggregates interference; (d) *TVStudy* implicitly assumes a duty cycle of 100% which is far higher than the railroads' typical 10-30% duty cycle; (e) *TVStudy*'s lowest allowed bandwidth input is four times the bandwidth actually used for rail safety operations; and (f) *TVStudy* treats all potential interferers identically regardless of their spectral position in the band relative to Channel 13. Further, for Channel 10 stations, the Commission's guidance acknowledges that harmful interference is unlikely due to the transition to digital TV reception, yet still requests coordination with all potentially affected stations. *See* OET Bulletin No. 74, Supplement A – Guidance for Predicting Inter-Service Interference to Broadcast Television in the VHF Band from Positive Train Control (PTC) Systems (Sept. 18, 2017), https://transition.fcc.gov/oet/info/documents/bulletins/oet74/OET74a-PTC.pdf.

[15] *See* 47 C.F.R. § 80.475(a)(2). For example, railroad operators could circulate a simple prior coordination notice to broadcasters when new railroad transmitters are deployed within 169 kilometers (for Channel 13 stations) or 129 kilometers (for Channel 10 stations) under an AMTS authorization. This approach would notify broadcasters of the railroads' operations in the band and provide a point of contact to resolve any incidents of harmful interference.

III. Allowing Telemetry Operations on the 452/457.9375 MHz Frequency Pair Up to a 30 Watt Power Level Would Increase Railroad Safety Without Increasing the Risk of Harmful Interference.

The Public Notice also seeks comment on whether marketplace or technological changes require elimination or adjustment to existing FCC rules.[16] The Commission currently authorizes railroad licensees to conduct EOT telemetry operations on frequency pair 452/457.9375 MHz with a maximum 8 watt transmitter output power.[17] AAR proposes allowing railroad operators to transmit at power levels up to 30 watts to increase railroad safety. Specifically, this rule modification would increase the reliability of railroads' existing EOT and head-of-train communications, enabling real-time sharing of telemetry information and, when necessary, prompt the train to deploy non-telemetry safety functions.[18] The rule modification would also allow railroads to upgrade their networks for greater efficiency, as discussed further below.

Increasing the power level would not increase the risk of harmful interference because: (1) non-railroad entities generally do not use the broader rail industry-coordinated 452.90000-452.96875 MHz and 457.90000-457.96875 MHz frequency channels ("452/457 MHz bands"), in which the 452/457.9375 MHz frequency pair is situated;[19] and (2) technological advances have

---

[16] Public Notice at 3.

[17] 47 C.F.R. § 90.238(e).

[18] *See, e.g.*, Federal Railroad Administration, Railroad Wireless Communications Roadmap, at 2 (Mar. 2020), https://railroads.dot.gov/sites/fra.dot.gov/files/2020-03/Railroad%20Wireless%20Communications%20Roadmap.pdf; *Requests for Waivers for End-of-Train Devices to Exceed Power Limit for Telemetry Operations in the 450-470 MHz Band*, Order, 25 FCC Rcd 16986, ¶ 2 (2010).

The Commission defines "telemetry" as the "transmission of non-voice signals for the purpose of automatically indicating or recording measurements at a distance from the measuring instrument." 47 C.F.R. § 90.7.

[19] *See, e.g.*, *Requests for Waivers for End-of-Train Devices to Exceed Power Limit for Telemetry Operations in the 450-470 MHz Band*, Order, 25 FCC Rcd 16986, ¶ 7 (WTB 2010) (authorizing the railroads to operate at 8 watts because the 452/457 MHz bands "generally are not used by non-railroad entities" and, as a result, created "little risk of interference."); *Amendment of Part*

allowed the railroads to leave sufficient spacing between their telemetry operations at the 452/457.9375 MHz frequency pair and their adjacent safety operations, which railroads already conduct at power levels up to 30 watts.

Moreover, because railroads already conduct other non-telemetry operations in the 452/457 MHz band at licensed power levels up to 30 watts,[20] including effective radiated powers in the 452/457.9375 frequency pair,[21] increasing the power limit would place telemetry operations on an "equal footing" with other rail applications, allowing railroads to more easily modernize currently separate rail safety systems into one, hybrid, intelligent, all-Internet Protocol "train control" network that can use a single type of application-agnostic radio in the future. Transitioning application-specific radios and networks to a unified rail safety network would allow the railroads to use the 452/457.9375 MHz frequency pair more efficiently. This is exactly the type of modernization and innovation envisioned by the Public Notice.[22]

IV. A 160 MHz Ribbon License Framework Would Streamline Utilization of Railroad Channels, Increase Operational Flexibility, and Reduce Administrative Burdens.

Finally, the Public Notice seeks comment on whether changes in the broader regulatory context require modification or elimination of existing rules.[23] AAR proposes consolidating the

---

90 of the Commission's Rules, Report & Order, 28 FCC Rcd 5924, ¶ 3 (2013) (finding that "the proposed increase in power [to 8 watts] was unlikely to cause interference to railroad operations.").

[20] *See, e.g.*, Call Sign KM2218 (authorized at power levels up to 30 watts for the 452.925 and 457.925 MHz channels).

[21] *See, e.g.*, Call Sign WQUL481 (authorized at power levels up to 30 watts effective radiated for the 452.9375 and 457.9375 MHz channels).

[22] Public Notice at 1 ("We seek comment on deregulatory initiatives that would facilitate and encourage American firms' investment in modernizing their networks, developing infrastructure, and offering innovative and advanced capabilities.").

[23] *See id.* at 4.

thousands of railroad licenses operating on industry-coordinated narrowband channels from 160.215 MHz to 161.565 MHz ("160 MHz Band") into a single, nationwide ribbon license to improve licensing efficiency and flexible railroad spectrum access.

AAR serves as the FCC-certified frequency coordinator for the railroad industry, overseeing rail-coordinated Part 90 licenses within the 160 MHz band.[24] This coordination encompasses essential communications for railroad operations, including dispatch, track maintenance, car maintenance, and safety-related activities. A search of the FCC's Universal Licensing System reveals that there are approximately 6,239 call signs representing about 41,675 transmitters operating within the railroad-coordinated 160 MHz Band. Railroad operators and affiliated companies hold over 86% of the licenses associated with these frequencies, and the remaining licenses require coordination and concurrence from AAR[25] to operate in areas where the unused channels can be licensed without causing interference to the railroad network. Consolidating these licenses into a single nationwide ribbon license would enhance administrative efficiency for both the Commission and AAR and facilitate "improvements to the safety of train operations in general, because the increased flexibility inherent in a geographic area license should facilitate the deployment of current and future [rail safety communications]."[26] The Commission recognized "the importance of an efficient, ubiquitous,

[24] Comments of the Association of American Railroads, RM-11979, at 1 (filed May 7, 2024) ("The FCC designated AAR as the frequency coordinator for certain railroad spectrum . . . nearly 40 years ago."); see also *Frequency Coordinator Services*, Association of American Railroads, https://www.frequencycoordinator.com (last visited Apr. 10, 2025).

[25] 47 CFR 90.35(b)(2)(ii).

[26] *Petition of Association of American Railroads (AAR) for Modification of Licenses For Use in Advanced Train Control Systems and Positive Train Control Systems*, Order, 16 FCC Rcd 3078 ¶ 7 (2001).

and internationally coordinated railroad communications system"[27] when it created AAR's 900 MHz ribbon license in 2001. The public interest benefits that existed at the time also exist here. A ribbon license offers a creative solution to streamline the licensing process and maximize the efficient use of railroad 160 MHz Band channels.

V. Conclusion

AAR thanks the Commission for its efforts in this proceeding and looks forward to continuing its work with the Commission to support the deployment of rail safety tools to secure the nation's railway networks.

Respectfully submitted,

/s/ Stephen Gordon

Stephen Gordon
Associate General Counsel

ASSOCIATION OF AMERICAN RAILROADS
425 Third Street, SW
Suite 1000
Washington, DC 20024

Michele C. Farquhar
David Fritz
Jason A Mills
Hogan Lovells US LLP
555 Thirteenth Street, NW
Washington, DC 20004
P: (202) 637-5663
E: michele.farquhar@hoganlovells.com

Counsel to AAR

April 11, 2025

[27] *See id.* ¶ 10.